AMENDMENTS TO THE CLAIMS

Claims 1-11 (Canceled).

12. (Currently amended) A field emission display device comprising:

at least one current emitter formed of a doped silicon, said current emitter having a tip from which emission current is emitted, wherein said tip comprises nitrogen; and

a substrate having a phosphor coating in at least one region positioned to receive electrons emitted by said current emitter,

~~said current emitter comprising a current emission surface comprising doped silicon infused with nitrogen,~~ said current emitter further comprising sides below said tip, wherein at least a portion of said sides ~~being~~ are surrounded by an insulating layer to prevent current from radiating out of the sides.

13. (Original) The device according to claim 12, wherein said current emitter resides on a base substrate covered by a barrier film.

14. (Original) The device according to claim 13, wherein said barrier film comprises silicon dioxide.

15. (Previously presented) The device according to claim 13, wherein said current emitter has a base on said barrier layer and a projecting top connected with said base.

16. (Previously presented) The device according to claim 13, further comprising a conductive layer deposited over said barrier film.

17. (Original) The device according to claim 16, wherein said conductive layer comprises aluminum.

18. (Canceled).

19. (Original) The device according to claim 18, wherein said insulating layer comprises silicon dioxide.

20. (Original) The device according to claim 18, wherein a silicon grid resides on top of said insulating layer.

21. (Original) The device according to claim 20, wherein a metal layer resides on top of said grid.

22. (Original) The device according to claim 21, wherein a passivation layer resides on top of said metal layer.

23. (Original) The device according to claim 22, wherein said passivation layer comprises nitride.

24. (Currently amended) A field emission display device comprising:

at least one current emitter ~~comprising a doped silicon~~; and

a substrate having a phosphor coating on at least a portion of the substrate, said coating positioned to receive electrons emitted by the current emitter, said current emitter comprising a ~~current emission surface comprising doped silicon infused with nitrogen~~ surface-treated focal point formed on said current emitter, wherein said focal point emits current emissions, and wherein said focal point comprises nitrogen.

25. (Currently amended) The device according to claim 24, wherein said ~~current emission surface~~ surface-treated focal point has atomic concentrations of oxygen and silicon reduced by a plasma enhanced chemical vapor deposition hydrogenation process and a subsequent nitrogen infusion process to values smaller than the atomic concentration of oxygen and silicon of ~~the current emission surface~~ a non-treated focal point subjected to atmospheric conditions.

26. (Currently amended) A field emission display device comprising:

an array of current emitters ~~formed of a doped silicon~~; and

a substrate having a phosphor coating in at least one region positioned to receive electrons emitted by said current emitters, said current emitters each comprising ~~a current~~ an emission ~~surface~~ focal point for emitting current emissions, wherein said emission focal point comprises comprising doped silicon infused with nitrogen.

27. (Currently amended) A field emission display device comprising:

at least one current emitter ~~formed of a doped silicon~~; and

a substrate having a phosphor coating in at least one region positioned to receive electrons emitted by said current emitter, said current emitter comprising a ~~current emission~~ top and bottom surface, said top surface comprising ~~doped silicon and deposited~~ nitrogen.

28. (Currently amended) A field emission display device unit comprising:

a current emitter ~~formed of a doped silicon~~ having a top and bottom surface, wherein said top surface is a surface-treated top surface, and wherein said surface-treated top surface comprises nitrogen; and

a substrate having a phosphor coating in at least one region positioned to receive electrons emitted by said current emitter~~,~~

~~said current emitter comprising a current emission surface comprising doped silicon infused with nitrogen~~.

29. (Currently amended) A field emission display device comprising:

a plurality of current emitters ~~formed of a doped silicon~~ each having a top and bottom surface, wherein said each top surface is a surface-treated top surface, and wherein said each surface-treated top surface comprises nitrogen; and

a substrate having a phosphor coating in at least one region positioned to receive electrons emitted by said current emitters~~,~~

~~said current emitters each comprising a current emission surface comprising doped silicon and nitrogen deposited on the doped silicon~~.

30. (Canceled).

31. (New) A current emitter for use in a field emission display device, said current emitter comprising:

a top and bottom surface, said bottom surface being formed over a semiconductor substrate, and wherein said top surface is a treated top surface comprising nitrogen.